



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

President H. H. Seerley, of the State Normal School of Cedar Falls, Iowa, has just ordered a complete set of the MONTHLY for the library. We only have a few more complete sets. Who wants them?

We are in correspondence with several excellent mathematicians who are desirous of securing better positions for next year. If any of our readers know of such positions which are vacant or likely to become vacant at the end of this school year, we shall be pleased to refer them to these gentlemen.

With this number begins the fourth volume of the MONTHLY. No pains will be spared on the part of the Editors to make this volume better than any of the three previous ones, and in this effort they earnestly solicit the continued aid of all former contributors and subscribers. This number is sent to all our old subscribers, with bill enclosed, and anyone who may wish to discontinue should return this copy with his name written on the wrapper.

BOOKS AND PERIODICALS.

Elements of Analytical Geometry of Two Dimensions. The Fourteenth Edition. By Briot and Bouquet. Translated and Edited by James Harrington Boyd, Instructor in Mathematics in The University of Chicago. 8vo. Cloth, 582 pages. Introduction Price, \$2. Chicago: Werner School Book Co.

This celebrated work so long known to mathematicians familiar with the French language, is now put in English dress, and is, therefore, at the service of American students. Comments on the material and the method of this work are unnecessary.

The work is divided into four books. Book I contains four chapters: Chapter I, Concerning Coördinates; Chapter II, Examples—The Circle, the Ellipse, the Hyperbola, the Parabola, Cissoid of Diocles, etc.; Chapter III, Concerning Homogeneity; Chapter IV, Transformation of Coördinates. Book II contains three chapters: Chapter I, Straight Line; Chapter II, the Circle; Chapter III, the Geometrical Loci. Book III contains twelve chapters: Chapter I, Construction of Curves of the Second Degree; Chapter II, Center, Diameter, and Axes of Curves of the Second Degree; Chapter III, Reduction of the Equation of the Second Degree; Chapter IV, the Ellipse; Chapter V, the Hyperbola; Chapter VI, Concerning the Parabola; Chapter VII, Foci and Directrices; Chapter VIII, the Conic Sections; Chapter IX, the Determination of the Conic Sections; Chapter X, Theory of Poles and Polars; Chapter XI, General Properties of Conic Sections; Chapter XII, Secants Common to Two Conics. Book IV contains seven chapters: Chapter I, the Construction of Curves in Rectilinear Coördinates; Chapter II, Convexity and Concavity; Chapter III, Asymptotes; Chapter IV, Construction of Curves in Polar Coördinates; Chapter V, Concerning Similitude; Chapter VI, Graphic Solutions of Equations; Chapter VII, Notions Concerning Unicursal Curves.

From the table of contents it is seen that a leading feature of the work is its scope. It treats all the important methods invented by geometers, and includes some of the most beautiful discoveries of ancient and modern times. All subjects are treated in a practical way and illustrated by the applications of the theories to numerous problems. The book is beautiful as well as profound. The typographical and mechanical execution of the work is a credit to American text-book making. I very heartily commend this work to the careful consideration of teachers of Analytical Geometry and mathematical students desiring a good work on the subject.

B. F. F.

The Outlines of Quaternions. By Lieutenant-Colonel H. W. L. Hime. 188 pages. Price, \$3. Longmans, Green & Co. 1894. London and New York.

The first chapters deal with the properties of vectors. In the remaining pages we are introduced to quaternions proper,—their various forms and properties. The last chapter treats of the applications of quaternions to trigonometry, the triangle, the circle, conic sections, and other curves, the plane, tetrahedron, sphere and cone. These geometric applications show in some measure the usefulness of quaternions and give freshness and interest to the book. There is no preface. The addition of some exercises for solution would have added to the practical character of the work for class use. J. M. C.

Plane Surveying. By William G. Raymond, C. E., Member American Society of Civil Engineers; Professor of Geodesy, Road Engineering, and Topographical Drawing, in the Rensselaer Polytechnic Institute, Troy, New York. 8vo. Cloth, 486 pages (including tables). Price, \$3. Chicago: American Book Co.

Some of the valuable features of this work are the detailed description of the use of instruments, accompanied by excellent illustrations and diagrams of the instruments themselves; the clear and comprehensible presentation of the subject matter of the work; and the fine form in which it appears for public favor. In its pages may be found treated plane table work and the use of the slide rule, planimeter and stadia measurements. Full tables and numerous examples of work in the way, both of underground and general topography are also given. B. F. F.

The Review of Reviews. An International Illustrated Monthly Magazine. Edited by Dr. Albert Shaw. Price, \$2.50 per year in advance. Single numbers, 25 cents. The Review of Reviews Co., 13 Astor Place, New York City.

The *Review of Reviews* for February makes "A Plea for the Protection of Useful Men" from bores and "societies," and all well-meaning people who bother the life out of public men by letters and calls on the pretext of seeking assistance in some worthy undertaking. The editor of the *Review* publishes letters on this subject from the late Gen. Francis A. Walker, written only a few weeks before his death. In one of these letters General Walker wrote, "I am not well, and neither callars nor correspondents have any mercy. B. F. F.

The Cosmopolitan. An Illustrated Monthly Magazine. Edited by John Brisben Walker. Price, \$1. per year in advance. Single number, 10 cents. The Cosmopolitan Co., Irvington-on-the-Hudson, New York.

The January number of the *Cosmopolitan* not only keeps up the usual literary excellence, artistic merit, and widest interests of that magazine, but also adds new features to its field of usefulness. The February number will contain the second part of Conan Doyle's new story.

During the year 1896, the *Cosmopolitan* reached the largest clientèle of intelligent, thoughtful readers possessed by any periodical in the world. The smallest issue of the year was 300,000 copies. B. F. F.

The Arena. A Monthly Magazine. Price, \$3. Single number, 25 cents. Boston: Arena Publishing Co.

The *Arena* is the organ or mouth-piece of no one party, faction, or creed. It is unmortgaged and unbribed—a *free lance*, an *open arena*—wherein all honest and properly expressed and authoritative opinions, having in view the betterment of human conditions and human life, may be expressed. The best writers and authorities on leading questions contribute to its pages. Among the leading articles in the January number are the following: The Religion of Burns' Poems, by Rev. Andrew W. Cross; A Court of Medicine and Surgery, by A. B. Choate; Finance and Currency, by Gen. Heman Haupt; Daniel Webster's School Days, by Forest Prescott Hall; England's Hand in Turkish Massacres; etc. B. F. F.